Tim Pham

Tim Pham is currently the Chief System Engineer of the NASA Deep Space Network (DSN) at the Jet Propulsion Laboratory, California. His interest is in system engineering and system development.

On system development, his recent effort focused on the use of low-cost commercial software-defined radio to increase data return to Voyager 2 mission during heliopause transition and to enable compatibility testing for upcoming NASA Artemis 1 mission with the Japan Aerospace Exploration Agency (JAXA) antennas. Past system developments included antenna arraying capability used to support Cassini, Spitzer and Voyager missions, and tone detection for the Entry Descent and Landing of the Spirit and Opportunity Mars rovers. Early in his career, he served as the lead system engineer in the developments of the ground telemetry system to maximize the data return for Galileo S-band mission, the DSN Radio Science system and the Goldstone Solar System Radar system.

Aside from the DSN system engineering activities, he also supports the Consultative Committee for Space Data Systems (CCSDS) activities in Cross Support Transfer Services area and serves as the Deputy chair of CDSCC Engineer Steering Committee. He serves as the technical lead from the DSN in supporting the upgrade of 21-m ground antenna system at Morehead State University for the Artemis 1 Cubesat missions.

Tim has published several papers on the topics of antenna arraying, spacecraft tracking, system modeling and performance analysis. He co-authored the book "Antenna Arraying Techniques in the Deep Space Network". He is the recipient of the NASA Exceptional Service Medal, NASA Exceptional Achievement Medal, and several NASA New Technology and Space Act Awards, as well as a recipient of the IARIA Fellows.